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# LEPROSY IN GUBA

LEPTORY IN CLUBA / by Dr. Manuel F. Alfon
Leptory in Cuba / by Dr. Manuel F. Alfon
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BY

Dr. Manuel F. Hifonso.

of the "San Lazaro" Hospital for Jepers, Havana, Cuba

Abstract of a paper

read before the Third Pan-American Medical Congress, held at Havana, Cuba; February, 1901,

(Translated into English by Dr. Chas E. Kohly.)

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Advantages of Liper homes
Statistics.



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## LEPROSY IN GUBA

BY

Ir. Manuel F. Alfonso.

In charge of the "San Lazaro" Hospital for lepers, Havana, Cuba

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#### SUMARY:

History of Leprosy in Cuba. Geography of Leprosy. Etiology. Diagnostic.
Course. Prognosis. Treatment. Contagiousness.
Advantages of Leper homes.
Statistics.





HAVANA, CUBA.

### HISTORY OF LEPROSY IN CUBA.

No information whatever can be obtained in regard to the existence of this disease previous to the conquest of the Island. It is supposed to have been imported, although the exact date when the first case was noticed, or the place where it came from are unknown.

Yet its history dates back to the remostest times, since in the year 1861 the generous Jesuit, Pedro Alegre donated the farm "Los Pontones" as a residence for his son Pedro who was a leper, and for all those suffering from the same disease, which leads to the supposition of the existence of other cases.

The spread of the disease may be deduced from the fact that two more institutions of the same character were established soon afterwards; one in the town of Santa Clara and the other in

Puerto Príncipe.

Up to a very recent date these institutions admitted only those patients who willingly applied to it; they were allowed to go about the town among other people or to sit at the entrances

of the churches and go begging from door to door.

In a similar way existed for may years in Havana a community of lepers in houses scattered over the two caballerias of land of "Los Pontones" donated by the Jesuit Alegre, forming even families by marriage, and not only intermarried lepers among themselves, but unions of non lepers with lepers took place, thus increasing the population of these patients. To prevent this, nothing was done by the different succeeding governments.

Later on a hospital-asylum was built, and being destroyed by a storm, the present building of the "San Lázaro" was erected, and which with only slight changes could be made the best

leper home in the world.

#### GEOGRAPHY OF LEPROSY.

The Lepra disease has spread all over the world and is endemic in the East Indies. It also could be so considered in México and some States of South America, especially in Colombia where there are more than 28,000 lepers.

In the Sandwich Island the disease gained ground rapidly after the year 1860, since then every effort has been made to check it by sending the patients to the Island of Molokai, where 1,152 lepers were latety confined.

There are about 100,000 lepers in British India. In China the disease prevails on a large scale and it is rapidly increasing in South Africa. It also prevails in Australia, New Zealand and

the Australian and Pacific Islands.

In Europe, especially in the North and Central region of Spain, in Iceland, Norway, Sweden, and certain parts of Russia, as in Dorpat, Riga and the Caucasus, are many cases to be found.

There are three principal foci of leprosy in the United States. In the State of Louisiana the disease in known since 1785 and is increasing, it being estimated that the present number of cases is about 300 or 500. In California the disease has been imported by the Chinese, and in the year 1898, there were 16 cases in the Hospital of 26th Street, San Francisco, of which two were Americans, ten Chinese, and four Europeans. In the Norwegian colonies of the State of Minnesota, there were 170 lepers and in the report of Dr. Bracken, Secretary of the State Board of of Health, it is stated that all of them had contracted the disease previous to their arrival in America. Scattered cases are found in some of the large cities on the Atlantic coast, but are all imported.

In Canada are foci of lepra in two or three countries of New Brunswich among Canadians and French people, also in Nova Scotia, and it is supposed to have been imported from Normandy. In Manitoba the cases existing are Icelanders. Those in British

Colombia are from China.

In the Island of Cuba may be about 600 lepers, and the disease is known since 1681. It has not extended much and has a marked tendency to disappear.

#### ETIOLOGY.

There can be numerous causes mentioned as predisposing the contraction of the disease. Among these are inheritance, the male sex, the residence on sea shore and riversides, filthiness, misery, previous sickness, cohabitation with lepers, the transmision by insects, certain foods as fish, fiamé root (Victoria Alata) eggs, etc., but up to the present time, it has not been experimentally confirmed that they are the real causes.

In past times it was believed, and there are at present some leprologists who sustain it, that the determining cause of the disease is contagion. Notwithstanding, the parasite doctrine and the discovery of the leprosy bacillus by Hansen, which is the same in the different forms of leprosy and different countries, it has not been demonstrated in a scientific manner that contagion is the only cause of this terrible and repulsive disease.

Although the study of the leprosy bacillus properly belongs

to the Pathology of this disease, I shall say a few words of it in this chapter. It was discovered by Hansen and can be found in all the effected parts of the leper and in all forms of leprosy. It is very much like the Koch bacillus of tuberculosis, with the difference that it is straighter and shorter that the latter. The same as this one, it can be dyed easely, but it cannot be discolored with nitric acid and alcohol; the Hansen bacillus can be dyed by the Gram methot, the Koch bacillus cannot. The culture of the Hansen bacillus can only be obtained in mediums preserved in vacuo, or effected and preserved in inert gases (carbonic acid, nitrogen.)

It can be found almost always in the lymph, the cells of the conective tissue being its favorite location, for which reason Virchow has denominated them leprosy cells. They can be found in large numbers in the tissue and organs affected, but never in the blood, urine or central nerve system, although, as an exception

it may be found in the spinal cord.

#### DIAGNOSIS.

Although the diagnosis of the disease can be established very easely in its tubercular and crippling forms, by the appearence of the patient, yet it is very difficult and sometimes impossible, in that known and classified as "nervous" or at the begining of the disease in whatever form it be, provided, we do not resort to the bacteriological examination, by means of which the bacilli are always found.

The tubercle form is the most common and starts always with large grayish spots on different parts of the body, especially in the face and hands; shortly afterwards the patient begings to loose his hair and at the same time, or somewhat later, the

tubercles break out, becoming more or less anesthesized.

The leprosy spots differ from those of other diseases by their chronic development and their typical character having a dark and raised edges and a depressed and pale center. If any doubts should arise as to their true character and they could be taken for penphigus flictena, herpes, reuma or siphilis or as dicromatous spots of vitiligo, which is a disease similar to that of leprosy, we would be obliged to search for other symptoms in order to establish the diagnosis, such as the derangement, of the sense of feeling, loss of hair, changes in the nails, excessive development of the mammae (especially in the male sex), enlargement of the ears and atrophy of the nasal partition.

The leprosy tubercles are recognized principally by their complete insensibility, peculiar color, and because they always appear in great number; the faces of certain patients are completely covered by them, which condition does not occur in any

other diatesis.

The leprosy ulcers differ from all others by their complete anesthesia wich is almost absolute in the edges and failes to

respond even to cautherizations with the thermo-cautery. The scars can be distinguished by their pearl color, concave form and their insensibility even in cases considered cured.

It the crippling form the symptoms are more pronounced, and the elimination of small bone fragments almost always is preceded by all the symptoms of the tubercle form; when this

takes peace it is called the mixed form.

The form classified as "nervous" is the one offering most difficulties for the diagnosis, as stated in the beginning of this chapter; in the majority of cases the first symptom noticed is the contraction of one or several of the fingers which the patients attribute as a rule to some burn or to some kind of work requiring constant bending of those fingers. This form is similar to "progressive muscular atrophy" but differs from it by the absence of sensibility, and because generally this disease appears in a more advanced age than the form of leprosy we are talking about.

Syringomielia is quite liable to lead to a confusion of diagnosis with this form of leprosy, but it has certain special symptoms recently pointed out by Schultze and Kahler by which we will always be able to separate both diseases, and among these is the full retention of sensibility in syringomielia, which condition never exists in the nervous form of leprosy. Up to recent times the only point separating both diseases was that the facial paralysis of syringomielia is of a central nature, while the leper's facial paralysis is periferic.

#### COURSE.

Leprosy has a chronic course, ending almost always with death, no complete cure ever having been effected and the few cases mentioned as such are not authenticated, it being probable that some of them were not leprosy at all; and in others a temporary stoppage only of the disease took place, known as "social cure" of leprosy which may sometimes last for years, but the disease appears again when least expected anihilating all hopes of a cure. In regard to this matter I am of the same opinion as Wernich believes that those cases mentioned as cured deserve the same scientific faith as those referred to in the Bible.

Notwithstanding this present pessimism I do not doubt that in view of the advances of modern science the day is not distant in which some modifications in the cultures of the bacilli producing this disease may give us a remedy for it just the same as it has been obtained for other terrible maladies.

#### PROGNOSIS.

Being at present an incurable disease the prognosis of leprosy is always grave. Its terminations are, as far as my observations go, the same as mentioned by other leprologists: diarrhea, severe laringeal derangements, pulmonary tuberculosis, albuminuria, etc.

#### TREATMENT.

Several remedies have been used for the treatment of this disease, and among these the principals have been: arsenic, mercury, iodoforme, carbolic acid, ichtiol, salol, tanin, creosote, hura brasilencis, hura crepitants, strichnine, antimonium, phosphorus, essence of eucalyptus, gurjum balsam, chalmougra oil (oleum ginocardiae), bromide and iodide of potasium, the Hoangnan (Strychonos gualteriana), the red mangle and the Carrasquilla seroterapic injections.

The treatment by the iodide of potasium and the mercury salts far from improving the patients almost always lead them

to a worse condition.

The other remedies, with the exception of the chalmougra oil, produce hardly ever a favorable action, even the red mangle, so much talked about among us at present, has not indicated any improvement in the patients to whom it has been adminisered, over those obtained by other preparations, or, simply by

a good hygiene.

The chalmougra oil is the most promising remedy; those patients who can tolerate it will notice shortly after its use its beneficcial influence, the spots, disappearing entirely in some cases, will be diminished, reabsortion of the tubercles will take place, cicatrisation of the ulcers, and recovering of part of the sensibility; but all these improvements first leading to entertain hopes of recovery, never amount to a complete cure, the cutaneous ulcers do not disappear ent rely, nor does the sensitive condition return in full.

The Carrasquilla injections were tried in the Hospital San Lázaro, of this city, during the time of the Spanish-Cuban war by Dr. Vidal Sotolongo Lynch, and as soon as the writer was placed in charge of the institution he proposed to Dr. Sotolongo to renew the treatment in question. To this he objected, stating that the results of his previous experiment were of such a discouraging nature as not to justify the renewal of this treatment. These facts together with the failure of Dr. Carrasquilla to reply to the critizim on his treatment by the International Leprologist's Congress, held at Berlin, and presided over by Koch, is the death sentence of the injection treatment in question.

We will now turn to the treatment in force at the San Lázaro Hospital of this city, and although we do not expect to cure our patients, at least, we trust that we will obtain some improvement by following it:

Internal treatment.—Chalmougra oil, starting with 50 centigrammes per day increasing this dose to what the patient can tolerate, some times to 15 grammes. Its use is counter indicated when the tubercles begin to break out, or in case the patient cannot tolerate it in his digestive track.

EXTERNAL TREATMENT.—Cauterizations of the edges of the ulcers and touching the tubercles with the termo-cauthery. The

spots, tubercles and ulcers are washed with a solution of peroxide of hydrogene.

All the patients are obliged to take a daily bath and are kept, as well as their clothes, as clean as possible. The water of the bath should be warm, as cold water has a bad effect.

The short time since this rational treatment has been inaugurated at our institution compels me to be silent as to its success, but I must say that I entertain great hope as to its outcome. We may introduce some change in this plan in future if necessary.

#### CONTAGIOUSNESS.

There are several opinions in regard to the more or less contagious nature of leprosy. Some authors believe that contagion is effected by means of the nasal secretions and that the nose is the starting point of the disease. Among those entertaining this view is the notable leprologists Strauss. Others believe that the Hansen bacilli have no preference for the nose.

Professor Patron Espada, of Yucatán, México, believes that one of the most powerfull causes of contagion is the direct contact with leper's underclothing there is however a great diversity of opinions and theories without that a sound and satisfactory reason for these has ever been advanced by their authors.

The investigations carried on in the laboratory of the San Lázaro Hospital by Dr. Fransisco I. Vildósola who, and confirmed by the experiences of Prof Ducrey, show (1) that the Hansen bacilli develop easely in sweetened gelatine, or glicerinated gelatine, or even in common broth culture, provided they are kept in vacuo or in a carbonic acid or nitrogene atmosphere; that in these conditions the colonies will grow in from 48 to 50 hours remaining alive for many months and possible for more than a year. This is provided they are kept from contact with the air as oxigenized ventilation will rapidly destroy them.

This makes us believe (and it is a point to which I desire to call special attention), that the Hansen bacilli looses it virulence, at least in regard to reproduction, as soon as it comes in contact with the air, a theory which explains satisfactorily why since the foundation of the San Lázaro Hospital not a single case of contagion among the employees and physicians of the institution has been registered, for which reason all the physicians who for the last 200 years have been in charge of this Hospital, were anticontagionists.

In times when marriage among lepers was permitted in this Island not one case has been observed of children from these unions inheriting said disease, and Dr. J. F. Arango in his annual Report for the year 1890 as Director of San Lázaro Hospital, mentions the case of two children from leper parents born in the Hospital, and who had remained in the institution more

<sup>(1)</sup> DUCREY.—Giorn. ital. delle. mal. ven., XXVII, 1892, pág. 76.

than 12 years without showing the slightest symptoms of the disease; one was at the time the report was written, 14 years old, and the other 18 years. At present one of these children, who now is a women, has had children of her own and none of these is suspected of being a leper.

These results are obtained in San Lázaro Hospital on account of its thorough hygiene but are not oberved in private practice, and in China, where leprosy is hereditary, the marriage in the third generation is permitted, in which case the disease as a

rule is extinguished.

Dr. Patron Espada whom I have mentioned previously, and who is practising in a country where there are numerous cases of leprosy, says in is boock "Some notes on leprosy", that he knows of no cases of lepers born such, neither of contagion by

nursing mothers.

In one of the districts of this city, the Cerro, lived a family of which the mother was a leper and delivered a child with all the signs of leprosy. When the boy was 10 years old the mother died and the boy entered the Hospital. This was April 23, 1887 he remained there until he died March 30, 1897. This same women gave also birth to a girl of good healt and showing no symptom of the disease; but when she reached 15 years of age she became a leper and died in the Hospital, January 15th, 1899. These two cases remained in the institution a period of 10 years from their admission until their death.

From the above we can infer that the contagion of leprosy may take place in the uterus, notwithstanding children being so refractary to the disease. This also proves the increased virulence of the Hansen bacilli when hidden in the deep limphatics, away

from the air contact.

I desire to be more explicit in indicating the way in which contagion is effected, as it is a point to which, as I said above, I wish to call special attention. A healthy individual may touch the external clothing and different parts of a leper's body which are in direct contact with the air without becoming infected, but he may become a leper if he comes in contact with the covered parts of the body or by using leper's clothes that have not been thoroughly aerated.

This may give us the explanation of the inmunity, for the last two hundred years, of the nurses, employees, and servants of our hospital, and its contagiousness in private practice, so evident during the past century in the Colombian Republic,

South América.

#### ADVANTAGES OF LEPER HOMES.

Once acquainted with the means to stop the spreading of the disease, advantage and necessity of organizing colonies in order to extinguish it, by isolating the cases from the community, are clearly recognized.

Admitting that immediate contact is the most powerfull agent for spreading the disease in question, it is my modest opinion that leper homes should have the following conditions:

1. Good ample ventilation.

2. Provide different departments for men, women and children.

3. There should be an observation department where sus-

pected cases should first be placed.

- 4. The inmates should be furnished with good baths and plenty of clean clothing, as proper hygiene is one of the most efficient means in aiding the treatment prescribed whatever it may be.
  - 5. They should have large gardens for the recreation of the

patients and at the same time to secure a purer air.

6. Construction of crematories to prevent any refuse leav-

ing the institution.

7. In compliance with the existing laws in this country on the subject, all lepers should be compelled to live in the places provided for them once that the diagnosis has been confirmed; their social position and family relations should be disregarded.

But if we are decidedly in favor of leper homes as the best means to extinguish the disease, we are also too much in favor of liberty not to hate anything resembling prisons. The leper should be isolated from the healthy community, but should have a special new society in which he should have all possible liberty consistent with his condition.

Only a rudimentary social organization exists in the Havana leper's home, (San Lázaro Hospital), which will be improved accordingly to what the income of the institution allows, until we reach our ideal: the *combined asylum*, that is, the asylum with its colony annex.

#### STATISTICS.

Number of patients admitted to San Lázaro Hospital, from the year 1830 to 1900 both inclusives:

White	Men	Spaniards Cubans Other nations Spaniards Cubans Canaries Other nations	52 267 75 19 4 138 9 4	Colored .	$\left\{ \begin{array}{llll} \text{Men.} & \left\{ \begin{array}{lll} \text{Africans.} & & 15 \\ \text{Cubans.} & & 10 \\ \text{Mulatoes.} & & 2 \end{array} \right. \\ \left\{ \begin{array}{lll} \text{Women} & \left\{ \begin{array}{lll} \text{Africans.} & & 6 \\ \text{Cubans.} & & 7 \\ \text{Mulatoes.} & & 1 \end{array} \right. \end{array} \right.$	•
		Total		1	Total 42	9

Chineese, mens, 199.

#### Total by races:

White	568
Negroes	389
Chineese	199
Mulatoes	40
Grand total	1196

The above figures have been obtained from the records of the hospital which were started in 1830. Of the 429 colored male patients in the hospital, six were married and one of them was married twice. Of the women, seven negroes were married, and a mulato women was married 4 times; of this race 4 boys and 4 girls have been born in the hospital; 4 men and 4 women have left the institution as cured cases. Besides these 4 men who had been committed to the hospital during the Spanish rule, as a punishment (!), also left the institution.

Of the white race in the hospital, 7 men were married and 5 women; 4 children were born, 3 male and 1 female. It also appears that 3 men were committed to the hospital not for being lepers, but for vagrancy, and 1 man as a political prisoner. Six

men and 1 women have been discharged as cured.

The majority of the cases have been from 25 to 70 years old. During the time that the writer has been in charge of the institution 8 patients have been discharged on account of not suffering from leprosy, but some other cutaneous disease.







